

Deficient crisis-probing practices and taken-for-granted assumptions in health organisations

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The practice of crisis-probing in proactive organisations involves meticulous and sustained investigation into operational processes and management structures for potential weaknesses and flaws before they become difficult to resolve. In health organisations, crisis probing is a necessary part of preparing to manage emerging health threats. This study examined the degree of pre-emptive probing in health organisations and the type of crisis training provided to determine whether or not they are prepared in this area. This evidence-based study draws on cross-sectional responses provided by executives from chiropractic, physiotherapy, and podiatry practices; dental and medical clinics; pharmacies; aged care facilities; and hospitals. The data show a marked lack of mandatory probing and a generalised failure to reward crisis reporting. Crisis prevention training is poor in all organisations except hospitals and aged care facilities where it occurs at an adequate frequency. However this training focuses primarily on natural disasters, fails to address most other crisis types, is mostly reactive and not designed to probe for and uncover key taken-for-granted assumptions. Crisis-probing in health organisations is inadequate, and improvements in this area may well translate into measurable improvements in preparedness and response outcomes.

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The practice of probing in crisis-ready organisations involves meticulous and sustained investigation into operational processes and management structures for potential weaknesses and flaws before they become difficult to resolve. It occurs at two levels in organisations: before problems happen and during the evaluation process after problems happen. This study is concerned with pre-emptive probing, which is preventative rather than reactive. Organisations that do not engage in pre-emptive probing are generally not proactive and are thus more prone to crises (1).

In a clinical setting, probing and encouraging questions are used to identify possible symptoms and signs of disease in a patient. They take a specific point of interest, emotion, or concern and focus on it in depth. It is a useful technique when dealing with sensitive topics, which patients may find difficult to raise on their own. Encouraging questions assist patients to push past personal resistance and

inhibitions. The same method is used in interviews of any sort where probing and open-ended questions are designed to entice meaning, clarity, depth, and to obtain additional information (2). Managerial dialogue provides a good example of this since the ability to probe people's points of view is an important skill (3). Some senior leadership teams are fortunate to receive extensive training on how to conduct intensive, probing discussions during succession planning meetings (4). If discussions in meetings are open and probing where people say what they really believe without fear, they are more successful and they may even become profound (5). At an organisational level, reviews of strengths, weaknesses, opportunities, and threats are an example of how probing can be employed (6). Probing in combination with brainstorming is used to investigate the factors working for and against an organisation that could affect overall performance and susceptibility to crises.

These examples illustrate how probing is well recognised as a critical thinking skill that is most effective when targeted at revealing implicit and unarticulated assumptions behind a particular line of reason (7, 8). Investigators with a high level of awareness begin by examining new situations by probing with insightful questions. They start by constructing artificial, idealised, oversimplified answers to less complex versions of the problem and following feedback, gradually penetrate deeper into more realistic and complex versions (9). This is, in essence, a process followed by any competent researcher. However, while idealisations, approximations, and simplifications are straightforward in scientific investigation, they are not apparent, frequently subtle, and are seldom clearly articulated in social science investigation. In science, the objective is often hitting the target, however, in social science, the challenge is often locating the target due to overwhelming contingencies (10). In these circumstances, successful leaders use persistent probing to locate problems and experimentation to determine how to best resolve them. Over time, a leader's problem-solution paradigm evolves into an act-learn-act-learn approach (10).

One method that is used to probe organisations is the use of simulations. Although they are usually constructed as preparedness exercises designed to test response performance and evaluate effectiveness, they can be used to identify weaknesses, gaps, faults, and dangerous assumptions. In health care organisations, simulations are frequently used in all these ways but they are primarily medical, not organisational. Emergency and disaster simulations, however, involve technical, social, and organisational elements so they provide a good example of how insight into preparedness can be obtained using this method (11). The authors could not locate any significant studies that specifically researched the extent of probing in health organisations, so this study was conducted to determine the extent of mandatory probing, executive responses to probing, the use of formal training and simulations as probing exercises, and the extent to which underlying assumptions are addressed.

Methods

Organisations were randomly selected from public directories of health services in Australia. Participating health organisations included hospitals, medical clinics, aged care facilities, pharmacies, dental clinics, chiropractic, physiotherapy, and podiatry practices. A participation rate of 40% was achieved that was deemed acceptable given issues related to availability, lack of time, confidentiality fears, and legal restrictions. Executive decision-makers were contacted for interviews that were conducted face-to-face or by telephone. Interviewees were assured anonymity and interviewers followed standardisation protocols.

Ethics application H2522 was granted approval by James Cook University.

Questions were drawn from a crisis management audit developed by Mitroff et al. (1) for Fortune 500 businesses in the United States. They were specifically designed to collect data on probing. These questions were part of a larger questionnaire and not all participants answered all questions. The data were analysed with SPSS for Windows version 18 using one-way ANOVA for numerical data and chi-square tests for categorical data.

Results

In response to the question 'Is probing for crises discretionary or mandatory?', 90.7% of the survey participants answered this question. A majority of hospitals and aged care facilities and almost half of medical centres institute mandatory probing. However, most allied health organisations institute discretionary probing (Table 1). Analysis using a chi-square test shows that this model is significant ($p < 0.05$). In response to the second question 'Is probing for crises rewarded?', 60% of interviewees responded 'No' and 40% responded 'Yes'. A chi-square analysis showed significant differences between organisations in the model ($p < 0.05$). In response to the third question 'Do you conduct formal training sessions or simulations for crises?', 45% of interviewees responded 'No' and 55% responded 'Yes'. A chi-square analysis showed significant differences between organisations in the model ($p < 0.001$). In response to the fourth question 'Do the training sessions or simulations probe for and uncover key, taken-for-granted assumptions?', 35 (46.7%) valid responses were received. A chi-square analysis showed no significant differences between organisation types ($p > 0.05$).

In response to the fifth question 'How frequently are the training sessions or simulations conducted?', only 39 (52%) of the interviewees provided an answer (Table 2). There are no significant differences in this model according to a chi-square analysis ($p > 0.05$).

In response to the sixth question 'For what kinds of crises are the training sessions or simulations conducted?', only 25 (33%) of the interviewees provided an answer that was too few to conduct a meaningful statistical analysis (Table 3). Only five of the eight organisation types responded and of those, most responses indicated training for natural disasters.

Responses to the seventh question 'What do the sessions specifically test for?', were captured on a 6-point Likert scale (Table 4). One indicated 'Test plans for a specific type of crisis'; two indicated 'Test reactive capabilities'; Three, four, and five indicated 'More than one crisis happening at the same time'; six indicated 'Test proactive capabilities'; and seven indicated 'Test entire crisis system'. A chi-square analysis showed no significant differences between organisations ($p > 0.05$).

Table 1. Percentages of responding organisations that institute mandatory or discretionary probing into activities and processes, that reward proving, that have formal training, and that probe for assumptions

Organisation type	Type of probing		Reward probing		Formal preparedness training		Probe for assumptions	
	Mandatory	Discretionary	No	Yes	No	Yes	No	Yes
Hospital	66.7	33.3	64.3	35.7	0.0	100.0	14.3	85.7
Medical centre	44.4	55.6	22.2	77.8	55.6	44.4	50.0	50.0
Aged care	83.3	16.7	33.3	66.7	0.0	100.0	33.3	66.7
Pharmacy	35.7	64.3	85.7	14.3	64.3	35.7	71.4	28.6
Chiropractic	20.0	80.0	40.0	60.0	60.0	40.0	80.0	20.0
Physiotherapy	12.5	87.5	50.0	50.0	62.5	37.5	85.7	14.3
Podiatry	20.0	80.0	60.0	40.0	80.0	20.0	100.0	0.0
Dental clinic	16.7	83.3	100.0	0.0	83.3	16.7	66.7	33.3

Discussion

This study investigated the extent of crisis probing in health organisations and the analyses offer a number of insights into the state of preparedness in this industry. The first issue examined was that of whether or not organisations embraced the concept of mandatory crisis probing as a preventative measure against future crises. The results for aged care facilities were positive with over 80% taking this measure. The degree of mandatory probing in hospitals was less encouraging and all other types of health organisations claimed a significantly disappointing degree of proactive behaviour.

In a previous study on how the bearers of bad news are treated in organisations, it was found that only 2.5% treat the bearers poorly while 37.4% treat them supportively (Canyon et al. unpublished). However, 54.4% treat them either poorly or supportively depending on the circumstances. Thus, with regard to the presence of rewards for crisis reporting, it may be asserted that the lack of reward is indicative of the presence of punishment. Hence, the result that 64% of hospitals, 85% of pharmacies, and 100% of dental clinics do not reward crisis reporting may indicate the presence of a

culture of suppressing bad news. Organisations that do not reward crisis reporting may not only be characterised as reactive, but also as less able to identify potential threats and less able to implement preventative measures. On a positive note, over 60% of medical centres, aged care facilities, and chiropractic practices manifested a supportive culture and rewarded staff who engaged in crisis probing activities.

According to the responses obtained in this study, all hospitals and aged care facilities conduct formal training sessions or simulations with the aim of preparing for crises. However, most crisis training in hospitals and all crisis training in aged care facilities focuses on natural disasters with very few organisations providing training in other areas. Notably, less than half of all other organisations conduct this type of training and, of these, almost all do so on an annual or more frequent basis. When these results are compared to other studies on the same organisations, there is a clear mismatch between training, planning, and experience (12, 13). Health organisations rarely, if ever, experience the types of major disasters that they are required to plan for, but they do experience a number of other crises that they are not required to plan for and that they do not train for.

Table 2. The percentage of organisations that conduct training sessions or simulations for crisis preparedness by training frequency

Organisation type	Weekly to monthly	Quarterly to bi-annually	Annually	Less than annually	No response
Hospital	12.5	18.8	50.0	12.5	6.3
Medical centre	18.2	0.0	18.2	9.1	54.5
Aged care	33.3	16.7	50.0	0.0	0.0
Pharmacy	5.6	0.0	16.7	11.1	66.7
Chiropractic	0.0	20.0	20.0	0.0	60.0
Physiotherapy	0.0	12.5	25.0	0.0	62.5
Podiatry	20.0	0.0	0.0	0.0	80.0
Dental	0.0	0.0	16.7	0.0	83.3

Table 3. The percentage of organisations that conduct training sessions or simulations for specific types of crises

	Hospital	Medical centre	Aged care	Pharmacy	Chiropractic	Physiotherapy	Podiatry	Dental clinic
<i>Response type</i>								
No responses	12.5	72.7	50.0	77.8	100	87.5	100	100
Valid responses	87.5	27.3	50.0	22.2	0.0	12.5	0.0	0.0
<i>Breakdown of valid responses by type of crisis</i>								
Natural disaster	50.0	18.2	50.0	11.1	0.0	12.5	0.0	0.0
Economic and financial	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Loss of proprietary information	6.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Technology/plant malfunction	0.0	0.0	0.0	5.6	0.0	0.0	0.0	0.0
Human resources/occupational	6.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Perceptual and reputational	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Criminal and psychopathic acts	6.3	0.0	0.0	5.6	0.0	0.0	0.0	0.0
Environmental	18.8	9.1	0.0	0.0	0.0	0.0	0.0	0.0
Regulatory and legal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

The nature of the training provided was assessed on a scale that ranged from specific to systemic and reactive to proactive. While it may be useful to train for a particular eventuality, crises usually throw off ripple events that constitute distinct threats in their own right (14). Hence, rigorous crisis training needs to incorporate multiple crisis types so as to faithfully replicate complex threats and be proactive.

At the heart of any probing activity is the desire to reveal implicit and unarticulated assumptions behind a particular line of reason because they are often the root causes of crises (15). It was thus of concern to observe that a third of organisations surveyed in this study admitted to failing in this regard and another third of the respondents did not deem the question important enough to answer. Of those who answered, the response was most positive for 75% of hospitals who probed for assumptions.

In conclusion, this study was conducted to determine the extent of mandatory probing, executive responses to probing, the use of formal training and simulations

as probing exercises, and the extent to which underlying assumptions are addressed. It found that most organisations, including hospitals, show a marked lack of mandatory probing; that rewarding crisis reporting is not present in the majority of health organisations; that training for crisis prevention is poor in all but hospitals and aged care facilities; that the frequency of training is adequate; that the focus of training is primarily natural disasters; that less than 10% of training focuses on being proactive and systematic; and that only 17% of organisations conduct training sessions or simulations to probe for and uncover key, taken-for-granted assumptions. Overall, it may be concluded that the level of probing for crises in health organisations is inadequate and that improvements in this area may well translate into measurable improvements in preparedness.

Conflict of interest and funding

The authors have not received any funding or benefits from industry to conduct this study.

Table 4. The percentage of organisations that conduct training sessions or simulations that test for capabilities ranging from specific crises to entire systems

Organisation type	The percentage of organisations that test for					
	Specific crises	Reactive capabilities	Concurrent crises	Proactive capabilities	Entire system	No response
Hospital	12.5	18.8	43.8	12.5	6.3	6.3
Medical centre	9.1	18.2	0.0	0.0	9.1	63.6
Aged care	50.0	0.0	33.3	0.0	16.7	0.0
Pharmacy	0.0	11.1	11.1	0.0	0.0	77.8
Chiropractic	0.0	20.0	0.0	20.0	0.0	60.0
Physiotherapy	0.0	12.5	12.5	0.0	0.0	75.0
Podiatry	0.0	20.0	0.0	0.0	0.0	80.0
Dental	0.0	0.0	16.7	0.0	0.0	83.3

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